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TRANSMITTAL OF APPEAL BRIEF (Large Entity)

Docket No.
ITL.0656

In Re Application Of: **Robert F. Kwasnick et al.**

Serial No.	Filing Date	Examiner	Group Art Unit
09/975,367	**October 11, 2001**	**Karabi Guharay**	**2879**

Invention: **Array Display Including Resilient Material in the Seam (As Amended)**

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application, with respect to the Notice of Appeal filed on **April 28, 2004.**

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☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

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Signature

Dated: **May 20, 2004**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant: Robert F. Kwasnick et al.	§	Art Unit:	2879
Serial No.: 09/975,367	§	Examiner:	Karabi Guharay
Filed: October 11, 2001	§		
For: Array Display Including Resilient Material in the Seam (As Amended)	§	Atty Docket:	ITL.0656US P10836

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APPEAL BRIEF

Sir:

Applicants respectfully appeal from the final rejection mailed January 28, 2004.

I. REAL PARTY IN INTEREST

The real party in interest is the assignee Intel Corporation.

II. RELATED APPEALS AND INTERFERENCES

None.

Date of Deposit: May 20, 2004
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III. STATUS OF THE CLAIMS

Claims 1-3, 6-13, and 15-20 are rejected. Each rejection is appealed.

IV. STATUS OF AMENDMENTS

The amendments to the final rejection were not entered.

V. SUMMARY OF THE INVENTION

Referring to Figure 1, an array display 10 may include a plurality of panels 12 that abut along gaps 14. Each panel 12, such as the panel 12C, may be made up of a plurality of modules 15. Each module 15 generates a portion of the overall image displayed by a panel 12 and each panel 12 creates a portion of the overall image displayed by the array display 10. Thus, the resulting composite image of the display 10 may be made up of the contributions to that image from the panels 12 and modules 15.

In many applications, it may be advantageous to build larger displays from smaller modules and panels. For example, in one embodiment, building unitary larger displays may involve more complex manufacturing processes. In other cases, building unitary larger displays may result in greater losses because, if any portion of the larger display is defective, the whole display may be ruined. Array displays on the order of one thousand pixels are envisioned, with relatively large pixels, on the order of one millimeter or greater. See specification at page 3, lines 6 through 25.

Referring to Figure 2, in one embodiment, the array display 10 includes an optical integrator plate 16, placed over the emissive side of each panel 12. Each plate 16 may have a black matrix (not shown in Figure 2) formed on the rear side 18 of the plate 16 to obscure seams

and gaps between adjacent pixels. In such case, a gap 14 exists between adjacent plates 16 (such as the plates 16a and 16b) and between underlying adjacent panels 12 (such as the panels 12a and 12b). Each module 15 may include front and back sections 18 and 20 respectively.

Referring to Figure 3, a series of black matrix lines 22 may be formed on the underside of each optical integrator plate 16. In some embodiments, the black matrix lines 22 may be formed in transverse rows and columns spaced apart by the width of each pixel. Thus, the black matrix lines 22 frame each pixel and serve to reduce the ability to perceive specific pixels while increasing contrast between pixels in some embodiments.

The spaces between adjacent plates 16, such as plates 16a and 16b, may be filled with a filler material 24. The filler material 24 may be optically transparent and may have substantially the same index of refraction as the optical integrator plates 16 themselves. In some embodiments, that index of refraction is from about 1.3 to 1.5.

The portion of the gap 14 between the optical integrator plates 16 and the underlying modules 15 may be filled by a black material 26 that may be a resilient material such as silicone or foam. The material 26 may be of a color and size to closely match the black matrix lines 22. Also, the material 26 may be positioned to continue the regular pattern of spacing between block matrix lines 22, in some embodiments. In addition, the shininess or light reflection characteristics of the material 26 may match those of the black matrix lines 22. In general, the material 26 may substantially match the optical characteristics of the lines 22. See specification at page 4, line 1 through page 5, line 12.

The material 26 may take on an appearance very similar to that of the black matrix lines 22. Thus, the combination of the appearances of the portions 24 and 26 with the black matrix lines 22 is to create an overall seamless appearance both between pixels and modules.

In addition, a separator 28 may be provided between adjacent modules 15, such as the modules 15a and 15e. In some embodiments, the separator 28 may be made of a resilient material that cushions any potential impacts or jostling between adjacent modules 15 either during assembly or during transportation. In one embodiment, the separator 28 may be formed of a resilient material such as a polymer such as silicone. If the separator 28 is applied in liquid form it may be applied with a syringe. Alternatively, expanding foam may be utilized as the separator 28.

In one embodiment, the separator 28 and material 26 may be made of the same material. In some embodiments, the material 26 and separator 28 may be integrated. In another embodiment, a temporary separator 28 may be applied to the modules 15 during transport. See specification at page 6, line 17 through page 7, line 14.

VI. ISSUES

A. Is Claim 1 Anticipated by the '328 Greene Patent?

VII. GROUPING OF THE CLAIMS

All of the claims may be grouped with claim 1.

VIII. ARGUMENT

A. Is Claim 1 Anticipated by the '328 Greene Patent?

Claim 1 covers an array display including a plurality of panels abutted together in side-by-side arrangement to form an array and defining seams between adjacent panels, a seam material around the panels, the seam material of adjacent panels abutting to form the seam, optical integrator plates positioned over said panels, and a filler material between said plates.

Greene does not teach "a filler material between said plates," since he only has one plate (cover plate 14) and there are no gaps in that plate that could be filled with a filler material. The final office action indicates that Greene shows gaps between the cover plate and the panels, as well as the cover plate and the back plate. Even if that is so, he does not show any region between optical integrator (i.e., cover) plates and any filler material in that region.

Therefore, the rejection should be reversed.

IX. CONCLUSION

Applicants respectfully request that each of the final rejections be reversed and that the claims subject to this Appeal be allowed to issue.

Respectfully submitted,

Date: May 20, 2004

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APPENDIX OF CLAIMS

The claims on appeal are:

1. An array display comprising:

a plurality of panels abutted together in side-by-side arrangement to form an array and defining seams between adjacent panels;

a seam material around the panels, the seam material of adjacent panels abutting to form the seam;

optical integrator plates positioned over said panels; and

a filler material between said plates.

2. The display of claim 1 wherein said resilient material is a foam.

3. The display of claim 1 wherein said resilient material is a polymer.

6. The display of claim 1 wherein said filler material matches the optical characteristics of said optical integrator plates.

7. The display of claim 1 wherein said resilient material is positioned beneath said filler material, said resilient material including an upper portion, said integrator plates including black matrix lines, said upper portion arranged to substantially match the optical characteristics of said black matrix lines.

8. The display of claim 7 wherein said upper portion is positioned between said optical integrator plates and said panels.

9. The display of claim 1 including black matrix lines formed on the upper surface of said panels, said material including an upper portion that substantially matches the appearance of said black matrix lines.

10. The display of claim 9 wherein said upper portion is made of a material that is different from said resilient material.

11. A method comprising:

abutting a plurality of panels together in side-by-side arrangement to form an array display;

defining seams between adjacent panels;

locating a resilient material around the periphery of each panel;

abutting the resilient material of adjacent panels to form a seam;

positioning optical integrated plates over said panels; and

filling the region between said optical integrated plates with a filler material.

12. The method of claim 11 including forming the seam of a resilient foam material.

13. The method of claim 11 including forming the seam of resilient silicone material.

15. The method of claim 11 including filling the region between said optical integrator plates and said panels with a filler material.

16. The method of claim 15 including matching the optical characteristics of said optical integrator plate with said filler material.

17. The method of claim 15 including providing a first seam material between said optical integrator plates, said first seam material being substantially transparent and matching the optical characteristics of said optical integrator plates.

18. The method of claim 17 including providing a second seam material beneath said first seam material to match the appearance of black matrix lines on said optical integrator plates.

19. The method of claim 18 including providing a third seam material below said second seam material and between said panels, said third seam material being resilient.

20. The method of claim 11 including providing black lines over said resilient material and said panels, a black line over said resilient material optically matching the black lines over said panels.